Essentials of Geology – GEOL 1303.002
Department of Physical and Environmental Sciences
Fall 2019

A. COURSE INFORMATION
Course number/section: GEOL 1303.002
Class meeting time: TR 12:30 – 01:45 pm
Class location: BH 207
Course Website: http://Bb9.tamucc.edu

B. INSTRUCTOR INFORMATION
Instructor: Ms. Elia Gil
Office location: CS 105
Office hours: T 10 am – 11:45 am &
W 9 am – 10:45 am
Telephone: N/A
e-mail: elia.gil@tamucc.edu
Appointments: Please email instructor directly for an appointment, or if you have any
questions or concerns.

C. COURSE DESCRIPTION
Catalog Course Description
Introductory earth science course for students majoring in a non-science subject area. Basic
gEologic material and concepts, such as minerals, rocks, the rock cycle, and plate tectonics
theory. Origin, composition, and evolution of our planet, as well as geologic phenomena that
affect everyday life, including global change, earthquakes, volcanism, groundwater and
mineral resources. May not be counted toward a degree in Geology or Environmental
Sciences. Will not substitute for GEOL 1403. This course counts toward the natural science
component of the University Core Curriculum Programs.

Extended Course Description
Goal of this course is to give you a well-rounded introduction to your home planet including
an understanding of natural geologic phenomena and geologic resources. The first half of the
course will cover basic geologic principles, e.g. plate tectonics and the rock cycle. During the
second half of the course we will focus on geologic phenomena and topics that affect our
everyday lives, including earthquakes, floods, fossil fuels, mineral resources and global
change.

D. PREREQUISITES AND COREQUISITES
Prerequisites: None.
Corequisites: None.
E. **REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES**

**Required Textbook(s):**

**Supplies:**
Pencil, eraser, colored pencils, ruler with mm markings.

F. **STUDENT LEARNING OUTCOMES AND ASSESSMENT**

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to demonstrate knowledge and understanding of:
1. composition and structure of the solid Earth,
2. theory of plate tectonics,
3. various minerals and rock types that make up Earth’s crust and interior,
4. internal and external processes that shape our planet,
5. interaction between some of the main components of the Earth System,
6. geologic hazards,
7. interdependence of science and technology and their influence on, and contribution to, modern culture.

In addition to the content knowledge above, successful completion of this course also provides you with basic core competencies such as:
1. critical thinking, e.g. when approaching topics using the scientific method
2. problem solving by working collaboratively in teams
3. communication skills, e.g. when presenting some of your work to the class verbally or turning in writing assignments.
4. Empirical and quantitative skills when working with numeral data, reading graphs etc.

Please always remember that you are the one responsible for your success. I will do my best to guide you in your learning process but without YOU assuming an active role by completing work, studying outside of class time, asking questions, making use of help offered, etc., you may not successfully pass this course.
G. INSTRUCTIONAL METHODS AND ACTIVITIES

Geology is a very visual and hands-on discipline. The following instructional methods and activities will be used: Lecture PowerPoints, In-Class Quizzes, In-Class Hands-On Exercises (such as rock and mineral specimens, topographic and geologic maps, etc.), and Exams. You may optionally access the publisher-provided Learn Smart Practice Questions and Chapter Quizzes; all are intended to help you deepen your understanding of the course material.

You are expected to read the textbook chapters on your own. Brief PowerPoint presentations in lecture will highlight major points, but not all chapter details. After lecture, review the PowerPoints, which will be posted to Blackboard.

Hands-On Exercises will be presented in class. You may need to submit these through Blackboard or turn in a hard copy during lecture by the stated deadline for credit. Instructions for each exercise will be given during lecture. Late submissions will have points deducted.

In-class Quizzes will test your understanding of the major chapter concepts and help you prepare for each Lecture Exam. Lecture exams will cover content from each chapter and from the Hands-On Exercises.

Extra credit assignments may be issued throughout the semester and are an opportunity to earn additional points towards the course total.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The student learning outcomes described in Section F will be measured through the assignments listed below. Limited extra credit opportunities will be made available.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>POINTS</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Exams (4 @ 100 points each)</td>
<td>400 points</td>
<td>40%</td>
</tr>
<tr>
<td>Chapter Quizzes (14 @ 20 points each)</td>
<td>280 points</td>
<td>28%</td>
</tr>
<tr>
<td>Homework Assignments (8 @ 15 points each)</td>
<td>120 points</td>
<td>12%</td>
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<tr>
<td>Comprehensive Final Exam (200 points)</td>
<td>200 points</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1000 points</strong></td>
<td><strong>100%</strong></td>
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A perfect score in this course would be to earn all 1000 points available. Final grading will be as follows:

A = 895-1000 points
B = 795-894 points
C = 695-794 points
D = 595-694 points
F <595 points
I. COURSE CONTENT/SCHEDULE

August 26       Classes Begin
September 02    Labor Day Holiday (campus closed)
September 24    Exam I
October 10      Exam II
November 05     Exam III
November 08     Last day to drop a class
November 21     Exam IV
November 27     Reading Day (No classes)
November 28-29  Thanksgiving Holidays (campus closed)
December 04     Last day of classes
December 05     Reading Day
December 12     Comprehensive Final Exam

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>CHAPTER/TOPIC</th>
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<tbody>
<tr>
<td>1</td>
<td>Tues 08/27</td>
<td>Syllabus; Chapter 1: An Introduction to Geology</td>
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<tr>
<td></td>
<td>Thurs 08/29</td>
<td>Chapter 2: Plate Tectonics: A Scientific Revolution Unfolds</td>
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<tr>
<td>2</td>
<td>Tues 09/03</td>
<td>Chapter 2: Plate Tectonics: A Scientific Revolution Unfolds cont.</td>
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<tr>
<td></td>
<td>Thurs 09/05</td>
<td>Chapter 3: Matter &amp; Minerals</td>
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<td>3</td>
<td>Tues 09/10</td>
<td>Chapter 3: Matter &amp; Minerals cont. &amp;</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 4: Igneous Rocks &amp; Intrusive Activity</td>
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<tr>
<td></td>
<td>Thurs 09/12</td>
<td>Chapter 4: Igneous Rocks &amp; Intrusive Activity cont.</td>
</tr>
<tr>
<td>4</td>
<td>Tues 09/17</td>
<td>Chapter 5: Volcanos &amp; Volcanic Hazards</td>
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<tr>
<td></td>
<td>Thurs 09/19</td>
<td>Chapter 5: Volcanos &amp; Volcanic Hazards cont.</td>
</tr>
<tr>
<td>5</td>
<td>Tues 09/24</td>
<td>Exam I: Chapters 1, 2, 3, 4, &amp; 5</td>
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<td></td>
<td>Thurs 09/26</td>
<td>Chapter 6: Weathering &amp; Soils</td>
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<td>6</td>
<td>Tues 10/01</td>
<td>Chapter 7: Sedimentary Rocks</td>
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<tr>
<td></td>
<td>Thurs 10/03</td>
<td>Chapter 7: Sedimentary Rocks cont. &amp;</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 8: Metamorphism &amp; Metamorphic Rocks</td>
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<tr>
<td>7</td>
<td>Tues 10/08</td>
<td>Chapter 8: Metamorphism &amp; Metamorphic Rocks cont.</td>
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<td></td>
<td>Thurs 10/10</td>
<td>Exam II: Chapters 6, 7, &amp; 8</td>
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<td>8</td>
<td>Tues 10/15</td>
<td>Chapter 18: Geologic Time</td>
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<td></td>
<td>Thurs 10/17</td>
<td>Chapter 18: Geologic Time cont.</td>
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<tr>
<td>9</td>
<td>Tues 10/22</td>
<td>Chapter 9: Earthquakes &amp; Earth’s Interior</td>
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<td></td>
<td>Thurs 10/24</td>
<td>Chapter 9: Earthquakes &amp; Earth’s Interior cont.</td>
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<tr>
<td>10</td>
<td>Tues 10/29</td>
<td>Chapter 11: Crustal Deformation &amp; Mountain Building</td>
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<tr>
<td></td>
<td>Thurs 10/31</td>
<td>Chapter 11: Crustal Deformation &amp; Mountain Building cont.</td>
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<tr>
<td>11</td>
<td>Tues 11/05</td>
<td>Exam III: Chapters 18, 9, &amp; 11</td>
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<tr>
<td>Date</td>
<td>Lecture</td>
<td>Notes</td>
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<tr>
<td>Thurs 11/07</td>
<td>Chapter 13: Running Water</td>
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<td>12</td>
<td>Tues 11/12</td>
<td>Chapter 13: Running Water cont. &amp; Chapter 14: Groundwater</td>
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<td></td>
<td>Thurs 11/14</td>
<td>Chapter 14: Groundwater cont. &amp; Chapter 15: Glaciers &amp; Glaciation</td>
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<tr>
<td>13</td>
<td>Tues 11/19</td>
<td>Chapter 15: Glaciers &amp; Glaciation cont.</td>
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<td></td>
<td>Thurs 11/21</td>
<td><strong>Exam IV: Chapters 13, 14, &amp; 15</strong></td>
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<tr>
<td>14</td>
<td>Tues 11/26</td>
<td>Chapter 20: Global Climate Change</td>
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<td></td>
<td>Thurs 11/28</td>
<td>Holiday: Thanksgiving Day – No Class</td>
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<tr>
<td>15</td>
<td>Tues 12/03</td>
<td>Chapter 20: Global Climate Change cont.</td>
</tr>
<tr>
<td></td>
<td>Thurs 12/12</td>
<td><strong>Comprehensive Final Exam: 11:00 am – 1:30 pm</strong></td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. **COURSE POLICIES**

**Attendance/Tardiness**
The grade you will receive for this course is based on your performance on exams, quizzes, and homework exercises. Missing any of these opportunities to collect points towards your point total will affect your grade. So: attend class and pay close attention to deadlines.

**Late Work and Make-up Work**
All work is due by the stated deadlines. Quizzes and homework assignments may be made up only in cases of excused absences. Students should contact the instructor in advance to make prior arrangements when possible.

**Extra Credit**
You will have at least one opportunity to earn extra credit points. Additional opportunities may be offered throughout the semester. Students must be in attendance on that day in order to participate in these opportunities.

**Cell Phone Use**
The instructor strongly discourages the use of electronic communication devices such as cell phones during class because they distract other students from the learning experience. Please place such devices in silent mode during class. If you must answer an emergency call, please walk unobtrusively out of the class, finish the conversation, and return to your seat equally unobtrusively.
Laptop Use
You are welcome to bring a laptop or other devices to class with the presumption that you are using it to facilitate your own learning (take notes, etc.). A student may be asked to close their laptop or refrain from using it, if deemed too distracting.

Food in Class
Students’ schedules may be hectic and may not allow time between classes for meals. If consuming food and drink in the lecture classroom, please respect the facilities by cleaning up all spills immediately and removing all trash. Always bring napkins.

Missed Exam
Students who must miss an exam should contact the instructor in advance to make arrangements to make up the missed exam. If the absence is unplanned, you should contact the instructor as soon as possible about the situation. Only students who have an excused absence may make up the missed exam. Any exam or quiz makeups should be completed as soon as possible. It is the student’s responsibility to contact the instructor.

Participation
Students are encouraged to actively participate in lecture discussion. Generally, students who participate more actively are able to learn the material more effectively and earn a higher grade in this class.

K. COLLEGE AND UNIVERSITY POLICIES

- Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**
  I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**L. OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.